

*What is claimed is:*

*Claims*

*Subpart 1*

5 1. A method for determining channel information in a cellular system, where a TDMA transmission protocol is used on the traffic channel allocated to the connection for transmitting user information during a connection between a mobile station and a base station of the current cell, in which method the base station identity codes (BSIC) (61) of the neighbour cells are received and stored, **characterised** in that said reception of the base station identity codes of the neighbour cells is prevented during the user traffic connection (66).

10 2. A method according to claim 1, **characterised** in that

- neighbour cell base station identity codes (BSIC) are received and stored in the memory of the mobile station before the user traffic connection is established; and  
- when the user traffic connection has been disconnected the mobile station receives identity codes of the neighbour cell base stations and updates in the memory any changes, which have occurred during the previous user traffic connection.

*Subpart 2*

15 3. A method for A method for determining channel information in a cellular system, where a TDMA transmission protocol is used on the traffic channel allocated to the connection for transmitting user information during the connection between a mobile station a base station of the current cell, in which method the levels of the base stations of the neighbour cells are measured (RXLEV) (61) **characterised** in that said level measurement of the base stations of the neighbour cells is prevented during the period of the TDMA frame allocated to traffic channels (66).

20 4. A method according to claim 3, **characterised** in that the level measurement of the base stations of the neighbour cells is made during a user traffic connection when an empty frame is allocated to the mobile station.

25 5. A method according to claim 3, **characterised** in that said level measurement of the base stations of the neighbour cells is prevented during the user traffic connection.

*Subpart 3*

30 6. A mobile station which belongs to a cellular system and which comprises means (71 to 87) for transmitting/receiving user information on a traffic channel using a TDMA protocol between the base station of the current cell and the mobile station, and means (71 to 77) for receiving and storing the base station identity codes (BSIC) of the neighbour cells. **characterised** in that it comprises means (71 to 77) for preventing said reception of the base station identity codes of the neigh-

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Can* ~~l~~bour cells during the user traffic connection.

*Part* ~~l~~ 7. A mobile station according to claim 6, **characterised** in that it is a stationary mobile station.

*Part* ~~l~~ 5 8. A mobile station which belongs to a cellular system and which comprises means (71 to 87) for transmitting/receiving user information on a traffic channel using a TDMA protocol between the base station of the current cell and the mobile station, and means (71 to 77) for performing level measurement (RXLEV) of the base stations of the neighbour cells, **characterised** in that it comprises means (71 to 75) for preventing said measurement of the base stations of the neighbour cells 10 during a TDMA frame allocated to traffic channels.

*Part* ~~l~~ 9. A mobile station according to claim 8, **characterised** in that it is a stationary mobile station.